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10/721,725	11/25/2003	Boris Dorfman	555255012645	5769

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EXAMINER	
PAUL, DISLER	

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/721,725	DORFMAN ET AL.	
	Examiner	Art Unit	
	Disler Paul	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-37 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-37 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 9/27/04;2/18/05.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 1,6-8,13-14,18-37 is rejected under 35 U.S.C. 103(a) as being anticipated over Kates ("US 2002/0176584 A1") and Keller et al.("2004/0037428 A1").

Re claim 1, Kates et al. disclosed a method of testing the audio performance of an acoustic device, the acoustic device comprising a microprocessor, a device microphone and speaker ("*fig.1 (154,160), page 1[0008] line 3-4 hearing aid to be evaluated*"), the method comprising steps of: producing an electric audio signal ("*fig.1 (104,108/electric audio output is reproduced at speaker*"); providing the electric audio signal as an input to an external speaker and outputting an acoustic audio signal corresponding to the electric audio signal ("*fig.1 (108); page 1[0008] line 5-6/the external speaker which outputted such audio representation*"); providing the acoustic audio signal outputted from the external speaker as an input to the

device microphone and outputting a further electric audio signal corresponding to the acoustic audio signal ("*fig.1/(154) and fig.1B(109,110) device microphone pick audio signal*"). While, Kates disclose of the above, He fail to disclose of the acoustic device comprising an auxiliary output device couple to the microprocessor. However, Keller et al. disclose of the system in which the acoustic device comprising an auxiliary output device couple to the microprocessor ("*fig.1 wt (102,103); page 2[0022]; par[0031,0037); fig.2)*") for the purpose of monitoring real time audio signals representation in audiometric testing. Thus, taking the combined teaching of Kates and Keller as a whole, it would have been obvious for one of the ordinary skill in the art to modify Kates by incorporating the acoustic device comprising an auxiliary output device couple to the microprocessor for the purpose of monitoring real time audio signals representation in audiometric testing.

The combined teaching of Kates and Keller as a whole, would have incorporate the teaching of directly routing the further electric audio signal from the device microphone to the auxiliary output device using the microprocessor and outputting the further electric audio signal from the auxiliary output device to an external test system ("*(fig.1-2/ wit microprocessor and I/O device which serve to output signals representations*"); and analyzing the further electric audio signal outputted from the auxiliary output device on the external test

system("*fig.1B(104,116); page 1[0008] line 9-13/ with the external computer system*").

Re claim 21, the method of claim 1, wherein the auxiliary output device is an electrical connector ("*Keller, fig.1 (102/electrically to connected to PC.*").

Re claim 6, the method of claim 21, the output device further includes a headset plug (fig.2B; 4B; page 4[0037]).

Re claim 7, with regard to serial port, have been analyzed and rejected with respect to claim 6 above.

Re claim 8, the method of claim 1 wherein the electrical audio signal is produced externally to the acoustic device ("*fig.1B*").

Re claim 13, the method of claim 1 wherein the auxiliary output device is an auxiliary input/output device ("*Keller,fig.1-2*") that is coupled to provide electric signals to the device speaker

("fig.1A/(158,160"), the method comprising further steps of: producing a speaker test electric audio signal ("fig.1B(104-108"); receiving the speaker test electric audio signal at the auxiliary input/output device ("*Keller,fig.1-2*"); directly routing the speaker test electric audio signal from the auxiliary input/output device to the device speaker using the microprocessor ("Kate,fig.1A (156-160)/wt microprocessor to output signals ") and outputting therefrom a device speaker acoustic audio signal corresponding to the speaker test electric audio signal ("fig.1A(160"); fig.1B(110 to 114)"); providing the device speaker acoustic audio signal outputted from the device speaker as an input to an external microphone and outputting a device speaker electric audio signal corresponding to the device speaker acoustic audio to the external test system ("fig.1B (118) and fig.1B (104) external test system"); and analyzing the device speaker electric audio signal outputted from the external microphone on the external test system ("fig.1/(104,116)").

Re claim 14, Kates disclose a method of testing the audio performance of an acoustic device, wherein the acoustic device comprises a microprocessor; a device speaker; each couple to the microprocessor ("*kates, fig.1A*"), However kates fail to disclose of the further limitation of the device also comprise of an auxiliary input device couple to the microprocessor. But, kelelr et al. disclose

of the system in which the acoustic device comprising an auxiliary input device couple to the microprocessor ("*fig.1-2*") for the purpose of monitoring real time audio signals representation in audiometric testing. Thus, taking the combined teaching of Kates and Keller as a whole, it would have been obvious for one of the ordinary skill in the art to modify Kates by incorporating the acoustic device comprising an auxiliary input device couple to the microprocessor for the purpose of monitoring real time audio signals representation in audiometric testing.

Now, the combined teaching of kates and Keller et al. further teach of the method comprising steps of: producing a speaker test electric audio signal; providing the speaker test electric audio signal as an input to the auxiliary input device ("*kates,fig.1B,see claim 1*"); directly routing the speaker test electric audio signal using the microprocessor from the auxiliary input device to the device speaker ("*fig.1B*"); outputting from the device speaker a device speaker acoustic audio signal corresponding the speaker test electric audio signal ("*kate,fig.1A-1B*"); providing the device speaker acoustic audio signal outputted from the device speaker as an input to an external microphone and outputting a device speaker electric audio signal corresponding to the device speaker acoustic audio signal to an external test system and analyzing the device speaker electric audio signal outputted from the external microphone on the external test

system ("*fig.1B wt (104) external device test and fig.1A (the device with microprocessor to directly output audio)*").

Re claim 20, has been analyzed and rejected with respect to claim 8 respectively.

Re claim 22, the method of claim 14, wherein the auxiliary input device is an electrical connector ("*keller; fig.1(102) to connect to PC*").

Re claims 18-19, have been analyzed and rejected with respect to claim 6-7 above.

Re claim 23, Kates disclose a system for testing the audio performance of acoustic devices, the system comprising: an external speaker for receiving an electric audio signal as input and outputting an acoustic audio signal representation thereof ("*fig.1B/(108)*"); and an acoustic device comprising a microprocessor, a device microphone for receiving as an acoustic audio signal output from the external

speaker, each of the device microphone couple to the microprocessor ("*fig.1A/microprocessors (156) each coupled/microphone(154) couple)*"); However, Kates fail to disclose of the further limitation of the acoustic device comprise a memory and auxiliary output device being couple to the microprocessor. But, Keller et al. disclose of the system in which further include limitation of the acoustic device comprise a memory and auxiliary output device being couple to the microprocessor ("*fig.1-2/; page 2[0009] line 15-20*") for the purpose of monitoring real time audio signals representation in audiometric testing. Thus, taking the combine teaching of kates and now Keller as a whole, it would have been obvious for one of the ordinary skill in the art to modify Kates by incorporating the limitation of the acoustic device comprise a memory and auxiliary output device being couple to the microprocessor for the purpose of monitoring real time audio signals representation in audiometric testing.

The combine teaching of kates and Keller et al. as a whole, further teach of the memory having data and instructions stored thereon to configure the microprocessor ("*page 2[0009] line 15-20; ,fig.1 (103c)* "): received a further electric audio signal representation of the acoustic audio signal from the device microphone as input; and directly route the further electric audio signal to the auxiliary output device for output therefrom to the test system for analysis ("keller,*fig.1-2/ signals route to (114) for analysis*").

Re claim 24, have been analyzed and rejected with respect to claim 21.

Re claims 25-26 have been analyzed and rejected with respect to claims 6-7 respectively.

Re claims 27-28 have been analyzed and rejected with respect to claims 11-12 respectively.

Re claim 29, the system of claim 23, further comprising: an audio generator coupled to the external speaker for producing the electric audio signal and providing the electric audio signal to the external speaker ("*kates, fig.1B (104,108)*"); and an audio analyzer coupled to the auxiliary output device for receiving and analyzing the further electric audio signal ("*fig.1B(104)*").

Re claim 30, the system of claim 23, further comprising: an external microphone for receiving an acoustic audio signal as an input ("*fig.1b(118)*"); wherein the auxiliary output device is an auxiliary input/output device coupled to further provide electric audio signals

to the device speaker ("*keller ,fig.1 (102/103)*"); wherein the memory having further data and instructions stored thereon to configure the microprocessor to ("*keller;fig.1(103); par[0009])*"): receive a speaker test electric audio signal at the auxiliary input/output device; directly route the speaker test electric audio signal from the auxiliary input/output device to the speaker ("*fig.1A-1B*"); wherein the device speaker output a device speaker acoustic audio signal representation of the speaker test electric audio signal for input to the external microphone("*fig.1B(118)*"); and wherein the external microphone outputs a device speaker electric audio signal representation thereof for analysis on an external test system ("*fig.1B(104)*").

Re claim 31, Kates disclose a system for testing the audio performance of acoustic devices, the system comprising: an acoustic device comprising a microprocessor, a device speaker couple to the microprocessor ("*fig.1A*"), However, kates fail to disclose of the acoustic device comprises a memory and auxiliary input device couple to the microprocessor.

However, Kates fail to disclose of the further limitation of the acoustic device comprise a memory and auxiliary input device being couple to the microprocessor. But, keller et al. disclose of the

system in which further include limitation of the acoustic device comprise a memory and auxiliary input device being couple to the microprocessor ("*fig.1-2)*") for the purpose of monitoring real time audio signals representation in audiometric testing. Thus, taking the combine teaching of kates and now keller as a whole, it would have been obvious for one of the ordinary skill in the art to modify Kates by incorporating the limitation of the acoustic device comprise a memory and auxiliary input device being couple to the microprocessor for the purpose of monitoring real time audio signals representation in audiometric testing.

The combined teaching of Kates and Keller et al. as a whole, teach of the memory having data and instructions stored thereon to configure the microprocessor ("*fig.1 (103; par[0009]) with incorporated processor*") to: receive a speaker test electric audio signal at the auxiliary input device ("*fig.1B (108,110)*"); and directly route the speaker test electric audio signal form the auxiliary input device to the device speaker for outputting a device speaker acoustic audio signal representation of the speaker test electric audio ("*fig.1B(110,116)*"); and an external microphone for receiving the device acoustic audio signal from the device speakers as input, and outputting a device speaker electric audio signal representation thereof for analysis on an external test system ("*fig.1B(118,104)*").

Re claim 37, the combined teaching of kates and rader et al. as a whole, teach the system of claim 31, further comprising: an audio generator coupled to the auxiliary input for producing the speaker test electric audio signal and providing the speaker test electric audio signal to the auxiliary input device; and an audio analyzer coupled to the external microphone for receiving and analyzing the device speaker electric audio signal ("*kates, see fig. 1B*).

Re claims 32-36 have been analyzed and rejected with respect to claims 24-28 respectively.

2. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being anticipated over Kates ("US 2002/0176584 A1") and Keller et al.("2004/0037428 A1") and further in view of Rader et al. (US 2003/0064746 A1).

Re claim 11, the method of claim 1, However, Kates and Keller et al. as a whole, fail to disclose of the further limitation wherein the acoustic device is a hand-held voice-enabled wireless communications device having an RF Transceiver coupled to the microprocessor.

However, Rader disclose of the acoustic system in which he further disclose an audio system in which the acoustic device is a hand-held voice-enabled wireless communications device having an RF Transceiver coupled to the microprocessor ("*fig.2(202-203*") for the purpose of enabling the user to transmit and manage audio signals. Thus, taking the combined teaching of kates and keller and now Rader et al. as a whole, it would have been obvious for one of the ordinary skill in the art to modify kates and Rader et al., as a whole, by incorporating the acoustic device as being a hand-held voice-enabled wireless communications device having an RF Transceiver coupled to the microprocessor for the purpose of enabling the user to transmit and manage audio signals.

Re claim 12, the method of claim 11 wherein the acoustic device is enabled for two-way wireless data communications ("*fig.2*").

1. Claims 2-4,9-10,15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kates ("US 2002/0176584 A1") and Keller et al. ("US 2004/0037428 A1") and further in view of Harrel et al. ("US 2003/0073408 A1").

Re claim 2, the method of claim 1, However, Kates and Keller et al. as a whole, fail to disclose of the details wherein the further electric audio signal output from the auxiliary output device is compared to the electric audio signal. However, Harrel et al. disclose an audio system in which the further electric audio signal outputted from the auxiliary output device is compared to the electric audio signal ("*page 1[0012] line 10-12;fig.1/signal from(26) is compared with pick up signal at (32)*") for the purpose of detecting whether the device speakers are functioning. Thus, taking the combined teaching of Kates and Keller et al. and now Harrel et al. as a whole, it would have been obvious for one of the ordinary skill in the art to modify Kates and Rader et al. as a whole, by incorporating the further electric audio signal outputted from the auxiliary output device is compared to the electric audio signal produced for the purpose of detecting whether the device speakers are functioning.

Re claim 3, the method of claim 1, However, Kates and Keller et al. as a whole, fail to disclose of the further details wherein at least one signal characteristic of the further electric audio signal is compared to a predefined test limit. However, Harrel et al. disclose an audio system in which he disclose of the further details wherein at least one signal characteristic of the further electric audio signal is compared to a predefined test limit ("*page 2[0014] line 1-2-signal's amplitude as characteristic for predefined limit in*

analysis and also page 5[0058] line 1-2") for the purpose of detecting whether the device speakers are functioning. Thus, taking the combined teaching of Kates and Keller et al. and now Harrel et al. as a whole, it would have been obvious for one of the ordinary skill in the art to modify Kates and Keller et al. as a whole, by incorporating the further details wherein at least one signal characteristic of the further electric audio signal is compared to a predefined test limit for the purpose of detecting whether the device speakers are functioning.

Re claim 4, the method of claim 1, However, Kates and Keller et al. as a whole, fail to disclose of the details of wherein in a plurality of characteristics of the further electric audio signal are compared to predefined test limits for a plurality of audio signal characteristics selected from the group including signal amplitude, frequency response, and harmonic distortion. But, Harrel disclose of an audio system in which he disclose of the further limitation of wherein in a plurality of characteristics ("*page 1[0012] line 17-18*") of the further electric audio signal are compared to predefined test limits("*page 5[0058]line 1-2 and further fig.12/S1640; page 3[0030] line 11-13 predetermined parameters/specifications*") for a plurality of audio signal characteristics selected from the group including signal amplitude ("*page 2[0014] line 1-2-signal's amplitude as characteristic")*, frequency response("*page 1[0005] line 6; page*

1[0006] line 7-10-frequency response test") and harmonic distortion ("*fig.2; page 3[0038] line 4-6*") for the purpose of detecting whether the device speakers are functioning. Thus, taking the combined teaching of Kates and Keller et al. and Harrel as a whole, it would have been obvious for one of the ordinary skill in the art to modify kates and Keller et al. as a whole, by incorporating he details of wherein in a plurality of characteristics of the further electric audio signal are compared to predefined test limits for a plurality of audio signal characteristics selected from the group including signal amplitude, frequency response, and harmonic distortion for the purpose of detecting whether the device speakers are functioning.

Re claims 15-17 in regard to speaker audio signal, have been analyzed and rejected with respect to claim 2-4 respectively.

Re claim 9, the method of claim 1, However, Kates and Keller et al. as a whole, fail to disclose of the further limitation of wherein the electrical audio signal produce represent single tone signal. However, Harrel disclose of a system in which he disclose of the further limitation of wherein the electrical audio signal produce represent single tone signal ("*fig.1/28; page 2[0027] line 1-3-radio signal produce single tone signals")* for the purpose of detecting whether the device speakers are functioning. Thus, taking the combined

teaching of Kates and Keller et al. and Harrel as a whole, it would have been obvious for one of the ordinary skill in the art to modify Kates and Keller et al. as a whole, by incorporating the further details of wherein the electrical audio signal produce represent single tone signal for the purpose of detecting whether the device speakers are functioning.

Re claim 10, the method of claim 1, however, Kates and Keller et al. as a whole, fail to disclose of the limitation of wherein the electric audio signal produced represents a multitone signal. However, Harrel disclose a system in which he disclose of the further limitation of wherein the electric audio signal produced represents a multitone signal ("*fig.1/28; page 2[0027] line 1-3-radio signal produce multinone signals*") ,thus taking the combined teaching of Kates and Keller et al. and Harrel as a whole, it would have been obvious for one of the ordinary skill in the art to modify Kates and Keller et al. as a whole, by incorporating the further limitation of wherein the electric audio signal produced represents a multitone signal for the purpose of detecting whether the device speakers are functioning.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable Kates ("US 2002/0176584 A1') and Keller et al. (US 2004/0037428 A1) and further in view of official notice.

Re claim 5, the method of claim 1, with the acoustic audio signal being provided to the external speaker (fig.1 B(108/external signal received via (104)), However, Kates and Keller et al. as a whole, fail to disclose connecting the external speaker to the device microphone with a seal prior to the acoustic audio signal signal being provided to the external speakers. But, official notice is taken the concept of providing a seal for connecting the speaker with a microphone during testing is commonly known in the art, thus it would have been obvious at the time of the invention for incorporating the concept of providing a seal for connecting the speaker with a microphone during testing for the purpose of obtaining a more accurate acoustic level signal to be analyzed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 572-270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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